METHOD AND SYSTEM FOR REDUCING RAMAN GAIN TILT ERROR

ABSTRACT OF THE DISCLOSURE

A method and system in accordance with the present invention greatly reduces the gain error due to Raman gain tilt for individual channels in an optical communication system during a transient event by determining a shift in average power (and thus wavelength) and using the determined shift to alter the average gain in the optical communication system. In various embodiments of the present invention, the average gain of the optical communication system is altered by altering the average gain of an amplifier in the optical communication system. In alternate embodiments of the present invention having an in-line optical filter, the average gain of the optical communication system may be altered by altering the filtering of the optical channels in the optical communication system.